



IEEE IROS 2020 Workshop on *Animal-Robot Interaction*

Title

Animal - Robot Interactions: Introducing Robots into Groups of Weakly Electric Fish

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Abstract

In this presentation, I will talk about how to integrate a biomimetic fish robot into groups of weakly electric fish. First I will introduce the fish, their biology and their way of electro-communicating with electric signals. Then I'll go on with our experiments on the integration of robots into groups of electric fish, first using very simple robots and then more and more sophisticated robots, which can interact with the fish. I will point out that for integration into a group, the robot needs to engage in electro-communication, while its visual appearance can be neglected. For full acceptance as a conspecific by the life fish, the robot has to be able to interact with the animals. Integration of the robot into the group is best, if it interacts both electrically and locomotorically.